1 VQE results Aer Estimator (With Shots)

(Full Hamiltonian) Anharmonic Oscillator $\Lambda = 32$ COYBLA Max 10k Iterations

Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time
RA r1 rl	1e−01	10000	100/100	56	−5.2711e+01	1.4979e+02	−5.2711e+01	4.2389e+02	4.2389e+02	6.1822e−06	03h 12m 17s
RA r1 rl	1e−02	10000	100/100	76	−8.9058e+01	1.2901e+02	−8.9058e+01	4.4616e+02	4.4616e+02	-	03h 33m 15s
RA r1 rl	1e−03	10000	100/100	95	−1.1718e+02	1.3305e+02	−1.1718e+02	5.4578e+02	5.4578e+02	-	04h 10m 35s
RA r1 rl	1e−04	10000	100/100	119	−3.3996e+01	1.3905e+02	−3.3996e+01	4.8747e+02	4.8747e+02	-	04h 30m 41s
RA r1 rl	1e−05	10000	100/100	137	−2.6981e+00	1.2408e+02	−2.6981e+00	4.2647e+02	4.2647e+02	-	06h 32m 24s
RA r1 rl	1e−06	10000	100/100	154	−6.622e+01	1.2837e+02	−6.622e+01	4.7909e+02	4.7909e+02	-	07h 01m 50s
RA r1 rl	1e−07	10000	100/100	179	4.9065e+01	1.4364e+02	4.9065e+01	4.5925e+02	4.5925e+02	-	07h 31m 07s
RA r1 rl	1e−08	10000	100/100	197	−2.1911e+02	1.5174e+02	−2.1911e+02	4.0328e+02	4.0328e+02	-	07h 30m 23s
Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time

Table 1